

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

To the Drawings:

The attached replacement sheets of drawings include changes to FIGs. 2, 3, 4 and 5. The sheets replace the original sheets for FIGs. 2, 3, 4 and 5. More specifically, in FIG. 2, the reference characters "122" and "124" are designated as the source driver and the gate driver respectively, and the reference characters designating the data provided to the source driver and the data provided to the gate driver respectively are amended as "To 122" and "To 124." Similarly, the reference characters "202" and "204" are designated respectively as the gate driver and the source driver in FIGs. 3, 4, and 5, while the reference characters designating the data provided to the gate driver and the data provided to the source driver are amended as "To 202" and "To 204" respectively.

Attachment: Replacement Sheets (4 pages).

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

REMARKS

This is a full and timely response to the outstanding First Office Action of July 9, 2007. Applicant has noted with great appreciation that the Examiner acknowledged receipt of all certified copies of the priority documents in connection with the present application and that all submitted papers have been placed of record in the file.

Present Status of the Application

Claims 1-21 remain pending in the present application. Specifically, the Office Action rejected Claims 1-21 as being anticipated by Naito (US 6,462,735 B2). Applicant respectfully traverses the judgments. In response thereto, Applicant has amended "color management data" to read "digital color management data" as recited in Claims 1, 2, 4, 5, 8, 14, 17, 19, 20 and 21 and presents arguments in the following discussions to overcome the rejections.

Further, the Office Action objected to Claims 6 and 12 for their informalities. In response thereto, Applicant has changed "driving" to "drive" in lines 3 of Claims 6 and 12 respectively to render both claims fully compliant with the instructions.

The Office Action also objected to the drawings FIG. 1, and FIG. 2, 3 and 5 for failing to comply with 37 CFR 1.84(p)(5) and 1.84(p)(4) respectively. In response thereto, Applicant has amended paragraph [0007] of the specification and FIGs. 2, 3, 4 and 5 to overcome the objections.

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

Objections to the Drawings

The Office Action indicated that the following reference characters in FIG. 1, POL, CLK1, SHL, DIO2, DIO1, CLKN, CLKP, D22N, D22P, D01N, D01P, D00N, D00P and DATPOL, were not mentioned in the description. In response thereto, Applicant has added the above-mentioned reference characters to paragraph [0007] of the specification and thereby providing them clear and unambiguous support in the disclosure of the present application. Applicant respectfully submits that the objection to FIG. 1 has thus been overcome.

Further, the Office Action pointed out that each of the reference characters "122," "124," "204," and "202" in FIGs. 2, 3 and 5 was used to designate both source/gate drivers and the data provided to the source/gate drivers. In response thereto, Applicant has amended and re-designated the aforesaid reference characters. The reference characters "122" and "124" in FIG. 2 are designated as the source driver and the gate driver respectively, and the reference characters designating the data provided to the source driver and the data provided to the gate driver respectively are amended as "To 122" and "To 124." Similarly, the reference characters "202" and "204" are designated respectively as the gate driver and the source driver in FIGs. 3, 4, and 5, while the reference characters designating the data provided to the gate driver and the data provided to the source driver are amended as "To 202" and "To 204" respectively.

Upon entry of the above-mentioned amendments to paragraph [0007] and FIGs. 2, 3, 4, and 5 of the present application, Applicant respectfully submits that all the current

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

objections to the drawings have been successfully overcome and rendered moot. Reconsideration and allowance of the pending drawings is most respectfully requested.

Objections to Claims 6 & 12

Claims 6 and 12 are objected to because of the following informalities: "driving" should be changed to "drive" (see line 3).

Applicant has amended "driving" as "drive" in respective lines 3 of Claims 6 and 12 exactly as instructed by the Examiner. Accordingly, upon entry of the above-mentioned amendments, objections to Claims 6 and 12 are submitted to have been overcome and both claims of the present application are thus in patentable form.

Claim Rejections Under 35 U.S.C. §102(b)

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Naito (US 6,462,735 B2).

Applicant respectfully traverses the rejections and amends "color management data" in Claims 1, 2, 4, 5, 8, 14, 17, 19, 20 and 21 as "**digital** color management data." Unambiguous support for the amendment can be found in paragraphs [0030] and [0033].

With respect to Applicant's Claim 1, as currently amended, it recites in part,

A color management structure for a panel display, comprising:

...

a timing sequence control unit, said timing sequence control unit outputting a plurality of signals to said plurality of gate drivers and said plurality of source drivers to drive said display array unit, **said timing sequence control unit outputting a clock signal and a digital color management data** to said

Page 13 of 19

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

plurality of source drivers.” (Emphasis added)

The Examiner held that “timing sequence control unit” of Claim 1 of the present application is analogous to “the signal-processing circuit 200” in FIG. 2 of Naito (US 6,462,735 B2, hereinafter as “Naito”) and that “said timing sequence control unit outputting a clock signal” recited in Claim 1 of the instant case has been disclosed by the clock generation circuit 1008 of FIG. 9 in Naito.

However, the clock generation circuit 1008 in FIG. 9 of Naito is not included in the signal-processing circuit 200 in FIG. 2 of Naito. In other words, the signal-processing circuit 200 of Naito does not output clock signals. Hence, the signal-processing unit 200 of Naito is clearly distinct from the timing sequence control unit of the instant case.

From another aspect, in the present application, since the timing sequence control unit outputs clock signals, the timing sequence control unit has a function of timing control. Whereas the signal-processing unit 200 in Naito merely converts digital picture signals into analog picture signals and then outputs the analog picture signals (lines 28-41, col. 7). The signal-processing unit 200 does not output any signals related to clock signals and thus does not have a function of timing control.

Accordingly, Applicant respectfully asserts that Naito does not teach, disclose or suggest in any way the technical feature “said timing sequence control unit outputting a clock signal” as recited in Claim 1 of the present application.

According to the MPEP 2131, “To anticipate a claim, the reference must teach every element of the claim”, so that the rejection to Claim 1 under 35 U.S.C. §102(b) is respectfully requested to withdraw.

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

Furthermore, the Examiner opined that the recitation of Claim 1 "said timing sequence control unit outputting a digital color management data to said plurality of source drivers" has been disclosed by Naito (column 15, line 50-column 16, line 31). Applicant respectfully submits that Naito has disclosed in column 15, lines 60-62, "The display information processing circuit 1002 performs processing of *display information* for output..." while paragraph [0030] of the present application, as mentioned above, has clearly described that the color management data is in a digital form. It follows that the digital color management data outputted by the timing sequence control unit of Claim 1 of the instant case is a digital signal rather than *display information*. Therefore, Naito does not in any way disclose the technical feature "said timing sequence control unit outputting a digital color management data to said plurality of source drivers" either.

From another aspect, the manner in which signals are processed as disclosed in Naito is apparently different from that in the present application. In Naito, the input signal in FIG. 1 is first converted by the A/D converter 100 and then analog picture signals are converted and outputted by the D/A conversion block 260. In contrast, the signal-processing manner of the instant case does not need A/D and D/A conversions. As illustrated and stated in FIG. 5 and paragraph [0033] of the present application, the input and output signals of the timing sequence control unit 256 are both digital signals.

Applicant submits that the digital color management data outputted by the timing sequence control unit of the present application is a digital signal; and the content of the digital signal relates to a gamma correction data. The digital signal will be transmitted to the source driver, and then the digital signal is decoded to produce

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

gamma voltages. One of the most distinctive technical features recited in the present application is that the gamma correction data is transmitted in a digital form, so as to prevent the gamma voltages from being interfered easily on a transmission path thereof and reduce the number of wires in the circuit layout.

As regards Claim 4, the Examiner held that "timing controller" of Claim 4 in the present application is analogous to "clock generation circuit" in Naito (FIG. 9; 1008), and "color management control block" analogous to "digital gamma correction circuit" of Naito (FIG. 2; 220). However, Claim 4 clearly recites in part "a color management control block, coupled to said timing controller" while Naito does not disclose, teach or suggest at all the coupling relationship between "the digital gamma correction circuit 220" and "the clock generation circuit 1008." Therefore, Naito apparently does not disclose each and every technical feature of Claim 4 of the preset application.

As regards Claim 5, the Examiner held that "processing unit" recited in Claim 5 of the instant case is analogous to "CPU in Naito (FIG. 1; 500), and further stated that "color management control block" is analogous to "digital gamma correction circuit" in Naito (FIG. 2; 220). However, as already clearly stated in Claim 5 that "said color management control block includes a processing unit," "CPU 500" in the Naito reference is not included in the "digital gamma correction circuit 220" but instead externally coupled to the "digital gamma correction circuit 220" and thus not equivalent to "the processing unit" of the instant case.

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

As regards Claim 6, the Examiner held that "programmable data interface" recited in Claim 6 of the present application is analogous to "signal-processing circuit" of Naito (FIGs. 1 and 2; 200). Claim 6 clearly recites in part "each of said plurality of source drivers includes...a programmable data interface receiving said color management data...." Hence, "programmable data interface" of the instant case is included in the source drivers and receives the digital color management data outputted by the timing sequence control unit. In contrast, the signal-processing circuit 200 in FIG. 2 of Naito is not included in the data drive circuit 430, and Naito is silent about a programmable data interface being included in the data drive circuit 430. Therefore, Naito does not in any way disclose, teach or suggest "programmable data interface" of Claim 6.

As regards Claim 8, the Examiner held that "INPUT" and "A/D 100" in FIG. 1 of Naito have disclosed "input interface" of Claim 8 of the instant case, "ASIC 210" in FIG. 1 of Naito has disclosed "decoder" of Claim 8 of the instant case, and "D/A block 260" in FIG. 1 of Naito has disclosed "digital to analog converting unit" of Claim 8 of the instant case. However, none of "A/D 100," "ASIC 210," and "D/A block 260" of Naito is included in the data drive circuit 430. Accordingly, Naito does not at all disclose, teach or suggest the technical features of Claim 8 of the present application.

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

As shown in the arguments above, Applicant respectfully asserts that Naito apparently does not disclose each and every technical feature of the present application as claimed in Claim 1, and in Claims 4, 5, 6 and 8 directly or indirectly dependent therefrom. The amendments Applicant has made to the relevant claims to change "color management data" into "digital color management data" serve to further distinguish the present application from the Naito reference. Applicant respectfully submits that Claim 1 of the instant case is obviously novel and thus patentably defines over Naito. The rejection of Claim 1 under 35 U.S.C. 102(b) is thus overcome and rendered moot. If Claim 1 patentably defines over Naito and is allowable, Claims 1-11 directly or indirectly dependent therefrom (including Claims 4, 5, 6 and 8 specifically discussed above) should also be allowed. Still further, the novelty rejections of all the pending claims in the present application based on Claim 1 thus no longer stand formal and should be withdrawn.

For at least the foregoing reasons, all the pending Claims 1-21 of the present application are submitted to be in patentable form. Withdrawal of the rejections of all the claims and allowance of the application and presently pending claims, as amended, is most earnestly solicited.

Customer No.: 31561
Docket No.: 12919-US-PA
Application No.: 10/709,467

CONCLUSION

For at least the foregoing reasons, it is believed that the pending Claims 1-21, the specification and the drawings are in proper condition for allowance. An action to the Examiner is invited to call the undersigned.

Date :

Oct. 8, 2007

Respectfully submitted,

Belinda Lee

Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: belinda@jciigroup.com.tw
Usa@jciigroup.com.tw